

CLAIMS:

1. A fuel cell adapter configured for connection to a fuel cell which is engageable upon a fuel metering valve of a combustion tool, comprising:
an adapter body having a base configured for engagement upon the fuel cell and a nozzle connected to said base;
said nozzle having a lobed free end configured for facilitating engagement upon the valve.
2. The adapter of claim 1 wherein said lobed free end includes a plurality of circumferentially spaced lobes each having a chamfered inner end.
3. The adapter of claim 2 wherein each of said lobes has an equal length projecting axially from said nozzle.
4. The adapter of claim 2, wherein said nozzle further includes a plurality of circumferentially spaced lugs, and said lobes are each associated with a corresponding one of said lugs.
5. The adapter of claim 1 wherein said nozzle defines a passageway, and further includes a frangible membrane blocking said passageway.

10014706-1101

6. The adapter of claim 5, wherein said frangible membrane has a hole for air escape and is disposed at said free end of said nozzle for indicating tampering when ruptured.

7. The adapter of claim 1 wherein said nozzle is secured to said base by a plurality of ribs securing said base to said nozzle in a radially spaced relationship.

8. The adapter of claim 7 wherein said ribs are configured so that said base secures said adapter to the fuel cell more securely than said ribs secure said nozzle to said base, such that upon an attempt to dislodge said adapter from the fuel cell, and a torquing force exerted on said nozzle, said nozzle breaks free of said base.

9. The adapter of claim 8, further comprising at least one wedge formed on said base and configured for frictionally engaging the fuel cell to secure said adapter to the fuel cell more securely than said nozzle is secured to said base.

10. The adapter of claim 1, further comprising:
 said nozzle having a plurality of lugs, a plurality of said lobes, and a plurality of support ribs;
 said lugs each having a ramped configuration, extending from said free end toward said base, and having a truncated lug end;

said lobes each having a chamfered configuration, extending from said free end and being circumferentially spaced; and

said support ribs each having a truncated rib end, and configured for connecting said nozzle to said base.

11. The fuel cell adapter as defined in claim 10, wherein said lugs are circumferentially spaced relative to each other, said lobes are circumferentially spaced relative to each other, and said support ribs are circumferentially spaced relative to each other.

12. A combustion tool comprising:
a housing enclosing a fuel metering valve;
a fuel cell provided with an adapter and configured for being accommodated in said housing in fluid communication with said fuel metering valve;
and

a latch disposed in said housing for releasably securing said adapter in said fluid communication with said fuel metering valve.

13. The tool of claim 12 wherein said adapter has a non-circular profile portion, and said latch includes a bracket configured to accommodate said non-circular profile portion upon insertion or removal of said adapter, and upon rotation of

said adapter, said bracket is configured for preventing the removal of said adapter from the tool.

14. The tool of claim 13 wherein said non-circular profile portion includes a plurality of circumferentially spaced lugs, and said bracket defines an opening with a plurality of inwardly radially projecting spaced tabs, said tabs being constructed and arranged so that said lugs can pass between them when said adapter is inserted or withdrawn, and upon rotation of said adapter, said tabs engage said lugs to prevent withdrawal of said adapter.

15. The tool of claim 12 wherein said latch includes at least one biased locking member for releasably retaining said adapter in engagement with said fuel metering valve.

16. The tool of claim 15, wherein said latch includes a bracket configured to receive and retain said adapter in a push-and-rotate motion, said locking member is constructed and arranged to engage said adapter to prevent rotation of said adapter.

17. The tool of claim 16, wherein said adapter has a plurality of spaced peripheral lugs, and said locking member engages said adapter between adjacent lugs.

18. The tool of claim 16 wherein said locking member exerts a biasing force against said adapter which can be overcome by manual twisting of said fuel cell.

19. The tool of claim 16 wherein said locking member is manually releasable to permit release of said fuel cell.

20. The tool of claim 12 wherein said latch includes a latch body having at least one locking tang movable between a closed position and an open position; and

a release member for moving said at least one locking tang to release said engagement with said adapter and permitting withdrawal of said fuel cell from said tool.

Add
A7

FOEFT" 9024T00T